Transfer of IOLMaster® patient measurements to the Holladay IOL Consultant Professional Edition program (HIC – PRO)

The IOLMaster performs biometric measurements for the purpose of intraocular lens power calculation in preparation for cataract surgery. It also provides on-board lens power calculation capability as well as patient data management and lens constant personalization (also called optimization.)
The Holladay IOL Consultant Professional Edition (HIC – PRO) is a third-party software program developed, distributed and supported by Jack Holladay MD that runs on a separate computer and provides intraocular lens power calculation, lens constant personalization and surgical outcomes analysis. It also contains a proprietary lens power calculation formula called the Holladay 2 formula, which is not available on the IOLMaster. The HIC – PRO program cannot be loaded or run directly on the IOLMaster instrument at this time.
IOLMaster users wishing to use the HIC – PRO program for IOL power calculation must transfer IOLMaster patient measurement data into the HIC – PRO program. This document identifies several methods for this data transfer and provides setup and data transfer guidelines. These methods were developed from a collaborative effort between Carl Zeiss Meditec and Jack Holladay MD for the benefit of our mutual customers.

Disclaimer- Please Read

This document does not represent or imply any commitment for sales, installation and setup, technical or clinical support of the HIC – PRO program. The HIC – PRO is a third-party application; users are advised to contact Jack Holladay MD at (holladay@docholladay.com) for technical and clinical support. Our tech support team has very limited knowledge of the HIC – PRO program's operation.

Carl Zeiss Meditec [CZM] does not provide sales, installation, setup, configuration, training or troubleshooting support for a customer's network. This document provides guidance to assist an IT professional when configuring the Holladay IOL Consultant Professional Edition to access patient data from an IOLMaster4 via Ethernet. CZM may provide guidance on a best-effort basis but is not responsible for the setup and administration of a user's office network.

Methods for data transfer from the IOLMaster to the HIC – PRO program

A. Export/Import Via Removable Media

B. Export/Import Via Network (Ethernet) connection

A. Export/Import Via Removable Media (Non – Networked Systems)

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The IOLMaster can export via 3 forms of removable media, depending on the model of the IOLMaster.
Floppy Diskette – Limited to older IOLMaster systems (Windows 95/98) that are equipped with a Floppy Disk drive.
CD – RW Disc – Available on newer IOLMaster systems (Windows XP) that are equipped with a CD – RW drive.
USB Memory Stick – Available on newer IOLMaster systems (Windows XP) that are equipped with USB ports.

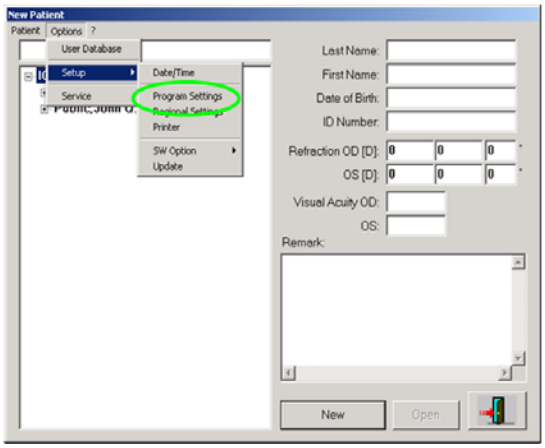
IOLMaster Setup

Prior to performing the Export function of the IOLMaster, you must ensure that the instrument is configured properly.
If the instrument is running Windows 95 or Windows 98, you must have the Option A software installed on the IOLMaster.
If the instrument is running Windows XP, you must have the Option A+ software installed on the IOLMaster.

In addition, the type of data and the path for the export must be defined. On IOLMaster systems running Windows 95 or Windows 98, the path is predetermined to be the Floppy Disk Drive. No other selection is possible. For systems running Windows XP, the path may be selected to be either the CD – RW drive, or a USB memory stick.

To define the data and path, follow the procedure below:

1. From the New Patient Menu, Click on "Options", then point to "Setup", and finally click on "Program Settings":



2. The Program Settings window will open. Click on the "Export" tab:

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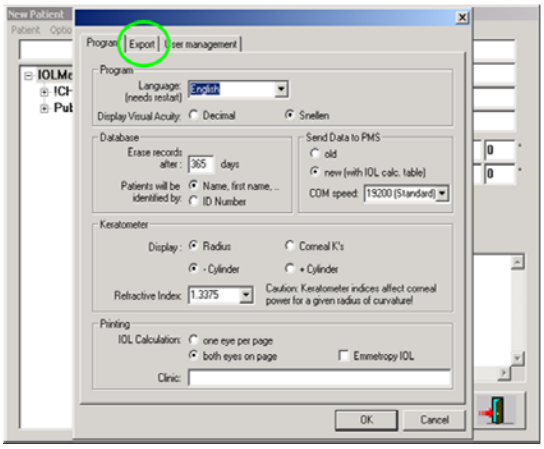
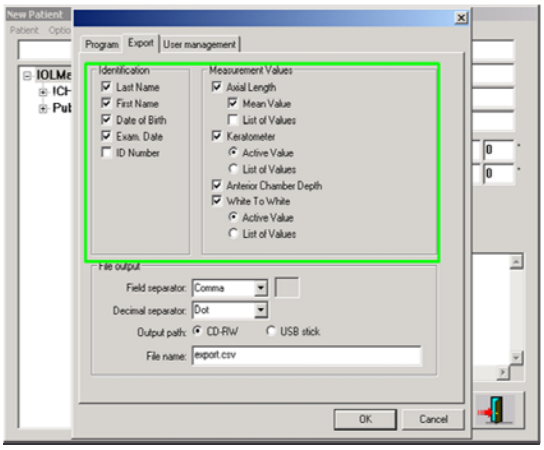


3. The Export tab screen will now be displayed. The upper portion of the screen has selectable options as to which measurements and patient demographics are to be included in the exported file. The picture below shows the most common default values:



The lower section of the export screen will not be present on older Windows 95 and Windows 98 systems. These systems can only export to the floppy disk drive. On newer Windows XP systems you can select either the CD – RW drive or a USB memory stick. The other fields should be left as is:

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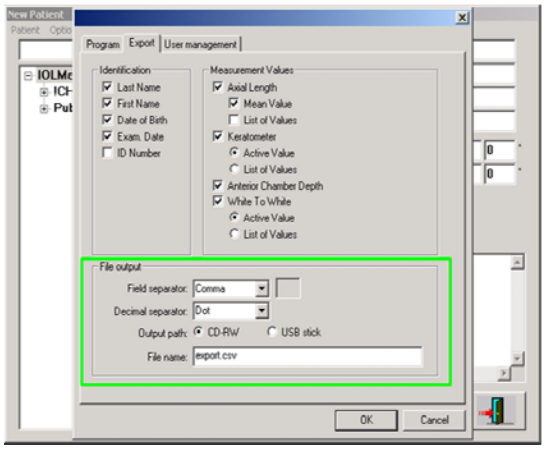
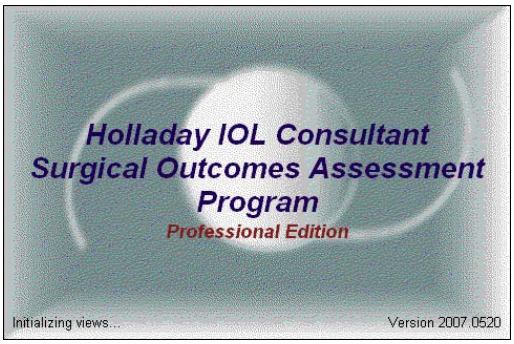


To export a file from the IOLMaster (All models), follow the instructions for patient file export which may be found in the IOLMaster User Manual for your instrument.

Importing Patient Data into the HIC – PRO software from removable media



1. From the “Patient Locator Screen”, click on the “Import Patients from IOL Master...” button:

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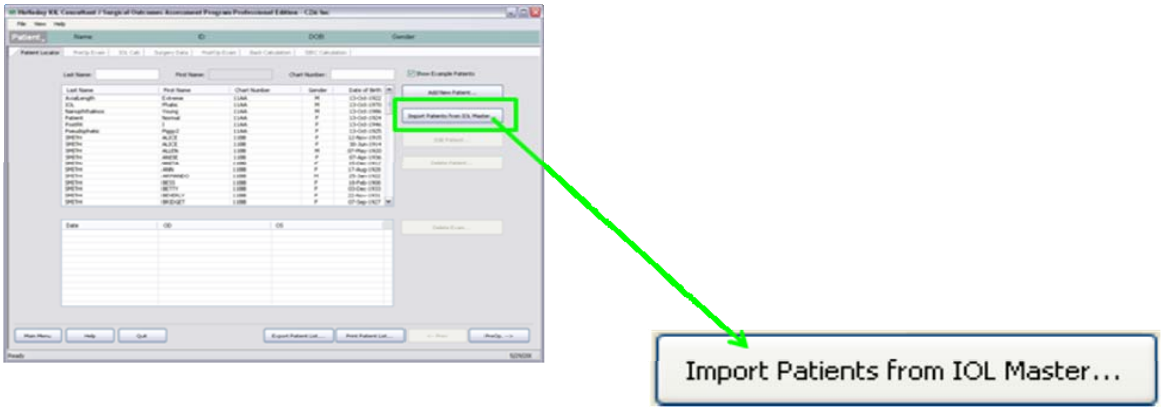
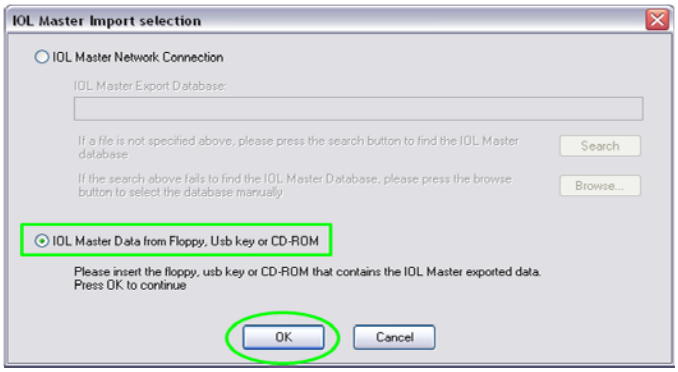


2. The program will display the "IOL Master Import selection" screen. Click on the "IOL Master Data from Floppy, Usb key or CD – ROM radio button, the click on the "OK" button:


IOL Master Import selection
IOL Master Network Connection
IOL Master Export Database:
If a file is not specified above, please press the search button to find the IOL Master database
Search
If the search above fails to find the IOL Master Database, please press the browse button to select the database manually
Browse...
IOL Master Data from Floppy, Usb key or CD-ROM
Please insert the floppy, usb key or CD-ROM that contains the IOL Master exported data.
Press OK to continue
OK
Cancel

3. The HIC – PRO software will now check the various locations (Floppy drive, CD – Rom drive, USB ports) for a file entitled "export.csv":

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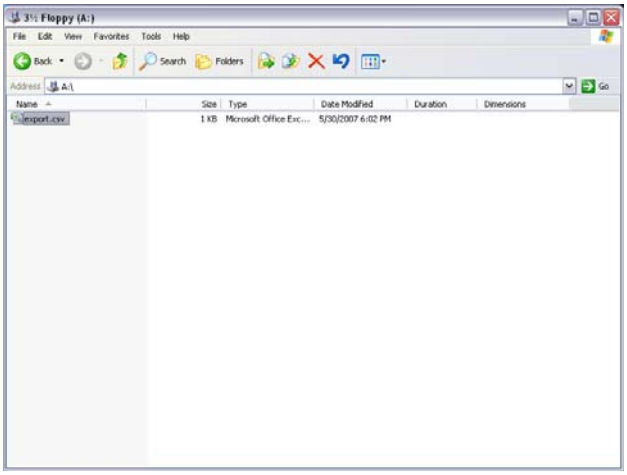
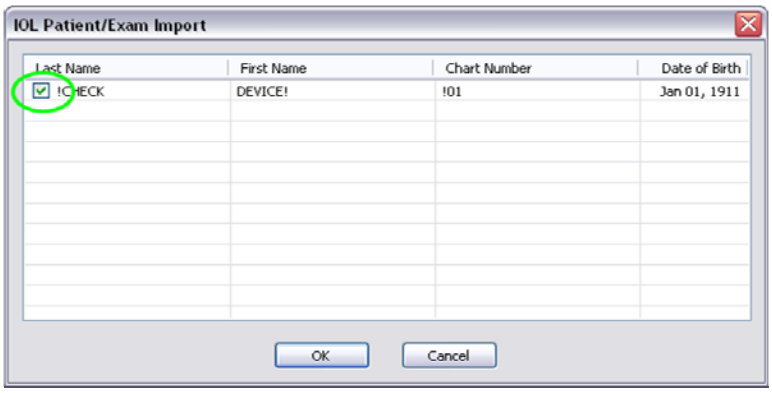
In the example pictured below, we have exported the file onto a Floppy Diskette:


3½ Floppy (A:)
File Edit View Favorites Tools Help
Back Search Folders
Address A:\
Name Size Type Date Modified Duration Dimensions
export.csv 1 KB Microsoft Office Exc... 5/30/2007 6:02 PM

4. When the HIC – PRO software finds the file, it will display all of the patients it finds within the file. In our example here, we had just one patient. If multiple records are found, you can select which records to import by checking or unchecking the box to the left of the record:



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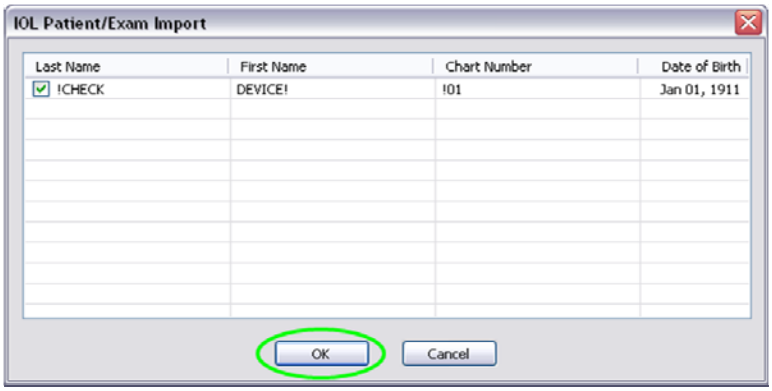
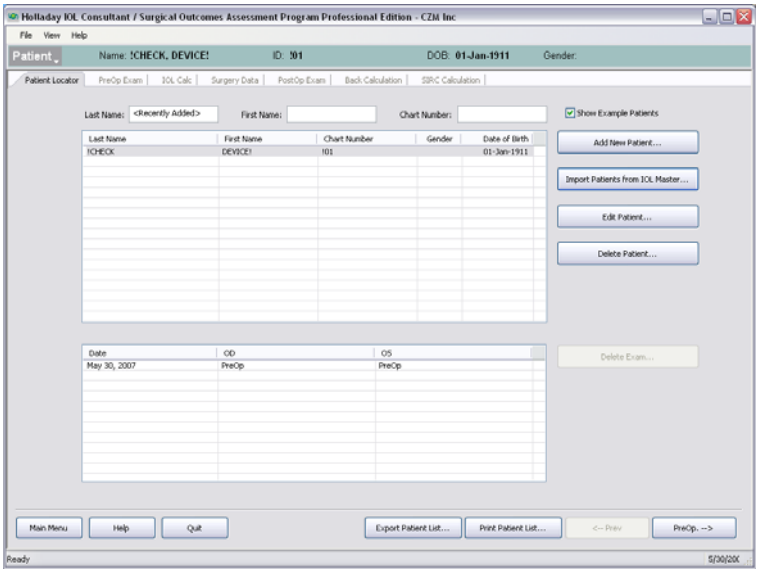
5. Once you have selected the patients you wish to import, click on the “OK” button:



6. As we can see from the example below, the selected patient record(s) have been imported and are available on the “Patient Locator” tab of the HIC – PRO application:



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B. Export/Import Via the Network (Ethernet) connection

Notes:

Network Requirements

The IOLMaster is configured to use DHCP (Dynamic Host Configuration Protocol). The IP address and other network information needed to successfully connect the IOLMaster to your network and to access the shared network folder "Export" will be automatically provided by a DHCP server.

The data transfer is handled by a MS Jet database (version 4). This database is stored in the shared network folder "Export" located onthe IOLMaster hard disk drive. The name of the export database is "IOLMasterExportData.mdb".

The IOLMaster may only be connected to private networks, which are protected from public networks (Internet) by firewalls conforming to the latest technical standards! A standard patch network cable, Cat 5, with two RJ-45 connectors should be used to connect the IOLMaster with the network. A network isolator must be placed inbetween IOLMaster (NET) and network cable. A network isolator (part number 000000- 0448-931) can be ordered from Carl Zeiss for connection to the external network (NET). Attention should be paid to the specific safety regulations (EN 60601-1-1 / IEC 60601-1 (see IOLMaster Instruction Manual).

IOLMaster Setup

Import of Patient records via Ethernet is only possible on IOLMaster systems which are running Windows XP operating systems, and which have Option A+ installed on the IOLMaster. The IOLMaster comes factory configured for DHCP type networks. If the IOLMaster is connected to a network with other than DHCP protocols, it will be necessary for a factory trained Zeiss Field Engineer to be present during the setup time to grant access to a networking professional to the network setup of the IOLMaster.

Provided that both the IOLMaster and the host PC running the HIC – PRO software are connected to a DHCP network, the IOLMaster can be located on the customer's network using the following instructions:

1. In order for the HIC – PRO software application to import patient files across the Ethernet connection, it must first "find" the IOLMaster on the network.

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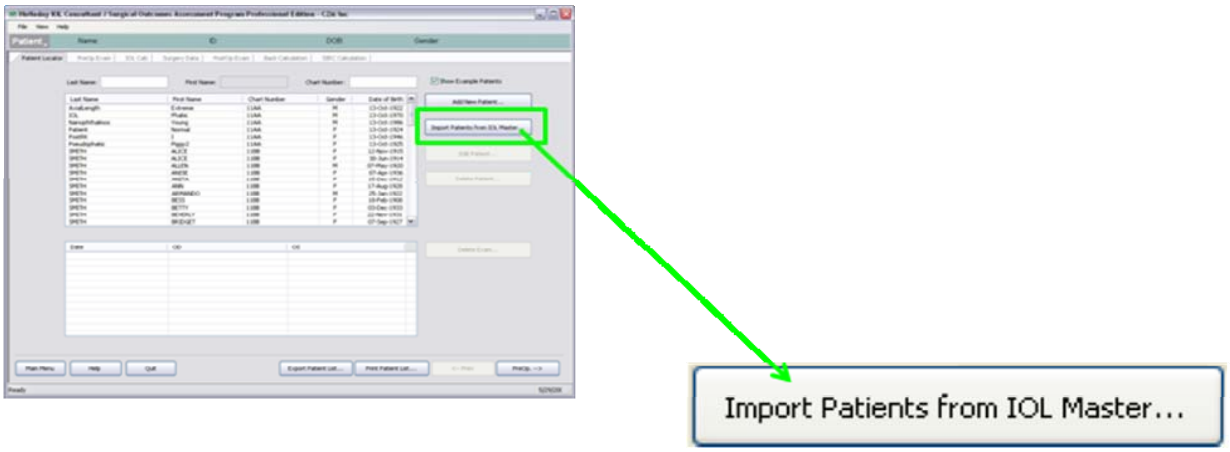
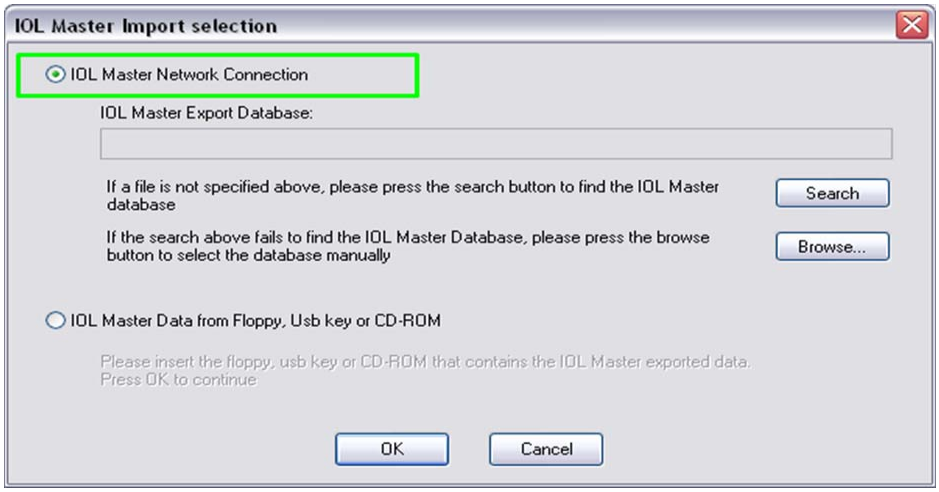
2. From the “Patient Locator Screen” click on the “Import Patients from IOL Master…” button:



3. The “IOL Master Import selection” window will open. Click on the “IOL Master Network Connection” radio button to select it:


IOL Master Import selection
IOL Master Network Connection
IOL Master Export Database:
If a file is not specified above, please press the search button to find the IOL Master database
Search
If the search above fails to find the IOL Master Database, please press the browse button to select the database manually
Browse...
IOL Master Data from Floppy, Usb key or CD-ROM
Please insert the floppy, usb key or CD-ROM that contains the IOL Master exported data. Press OK to continue
OK
Cancel

4. Click on the “Browse” button:

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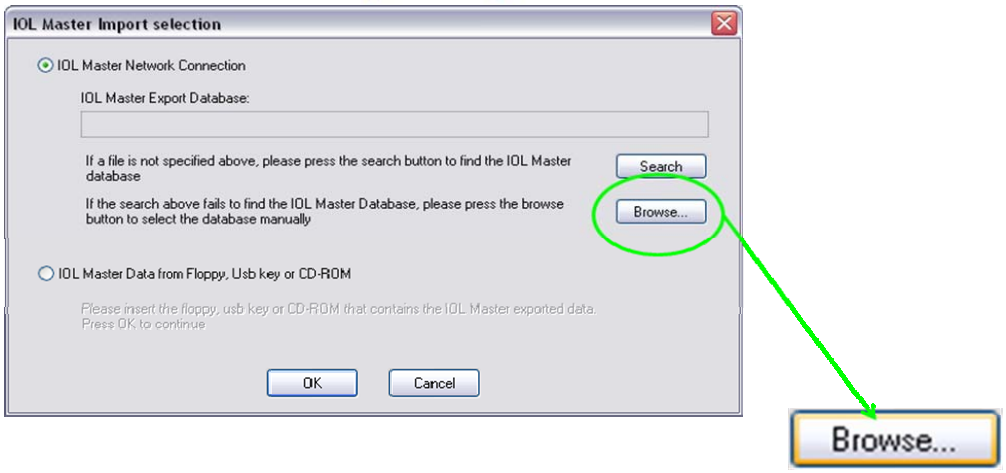
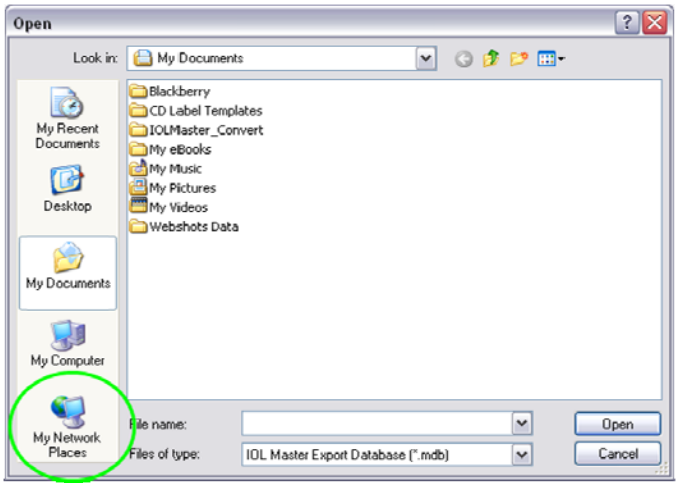

IOL Master Import selection
IOL Master Network Connection
IOL Master Export Database:
If a file is not specified above, please press the search button to find the IOL Master database
Search
If the search above fails to find the IOL Master Database, please press the browse button to select the database manually
Browse...
IOL Master Data from Floppy, Usb key or CD-ROM
Please insert the floppy, usb key or CD-ROM that contains the IOL Master exported data. Press OK to continue
OK
Cancel
Browse...

NOTES:

It is not recommended to find the IOLMaster by clicking on the "Search" button. Depending on the size of the network this method can take a very long time.

In the following steps, the screebs you will see are for reference. Depending on the particular PC you are setting up, your actual screens may look slightly different, but the functionality is identical.

5. A Microsoft Windows Explorer window will open. Find and Double – Click on "My Network Places":



6. When the "My Network Places" window opens, locate and Double – Click on "Entire Network":

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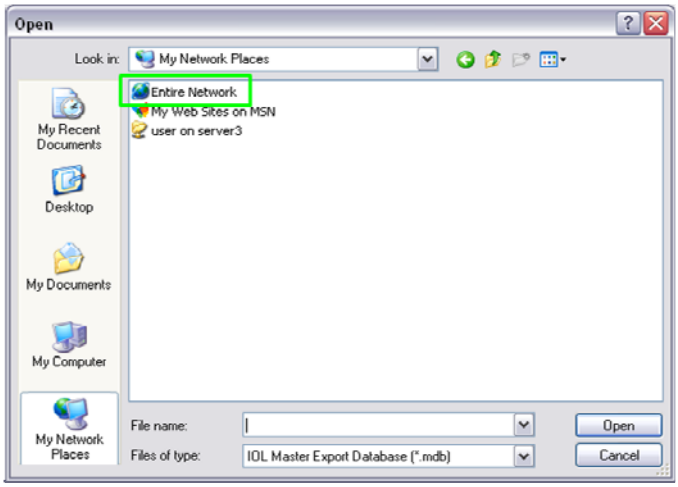
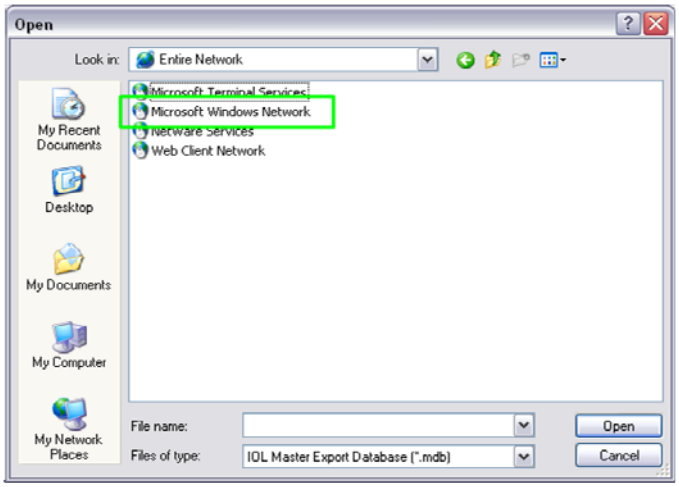


7. All of the various networks that your system may connect to are displayed. Find and Double – Click on "Microsoft Windows Network":



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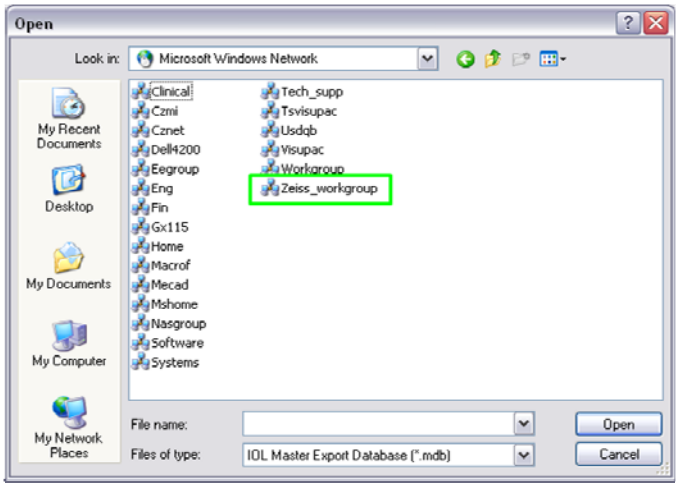
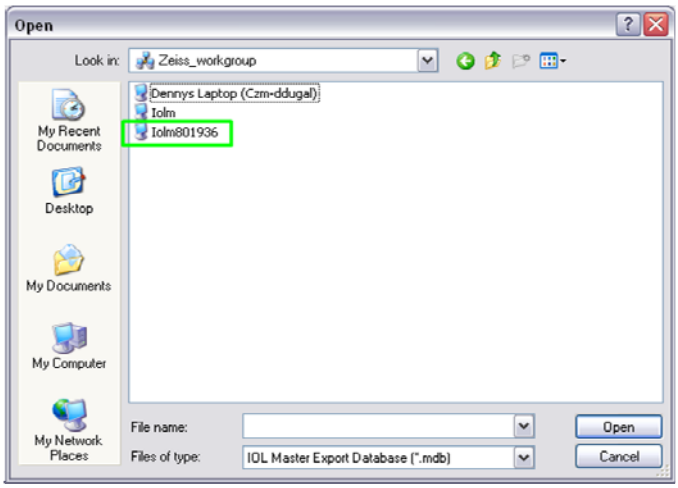
8. All of the “workgroups” which are part of your Microsoft Windows Network will now be displayed. Locate the workgroup entitled “Zeiss_workgroup”. Double – Click on this workgroup:



9. All of the computers which are part of the “Zeiss_workgroup” will now be displayed. In our example, we have two different IOLMaster’s, and the computer that we have the HIC – PRO software loaded on. Double – Click on the IOLMaster that you wish to connect to and import from:



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10. If this is the first time you have connected to this IOLMaster, you will be prompted for a User name and Password:

11. Type in the following, EXACTLY as shown:

User Name --- IOLMaster

Password --- Iolm_XP

NOTE: You will not see what you are typing as a password, as it will only display dots, so be very careful when typing the password.

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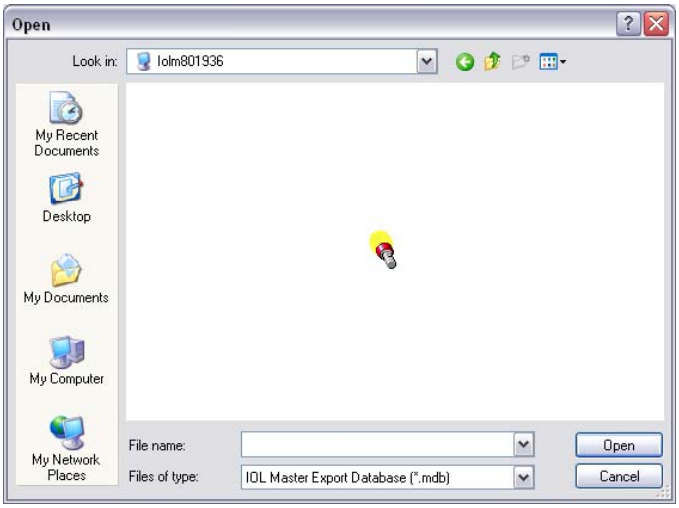
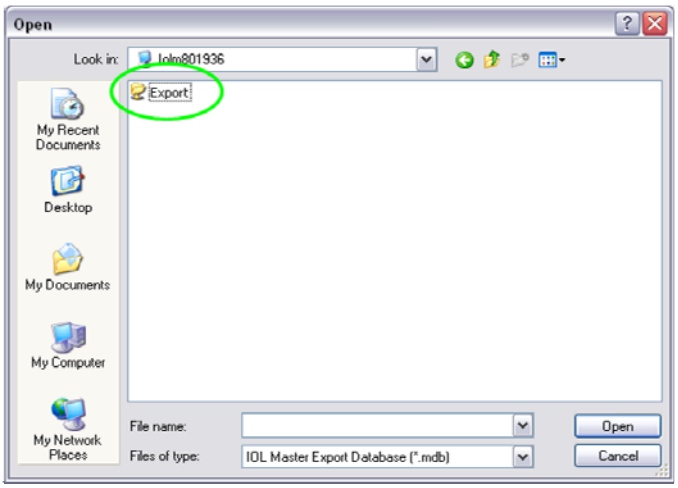
12. If you have correctly entered the proper User Name and Password, the software will display this screen while it searches for “shared” folders on the IOLMaster:



13. The software should find the default shared “Export” folder. Double – Click on this folder:



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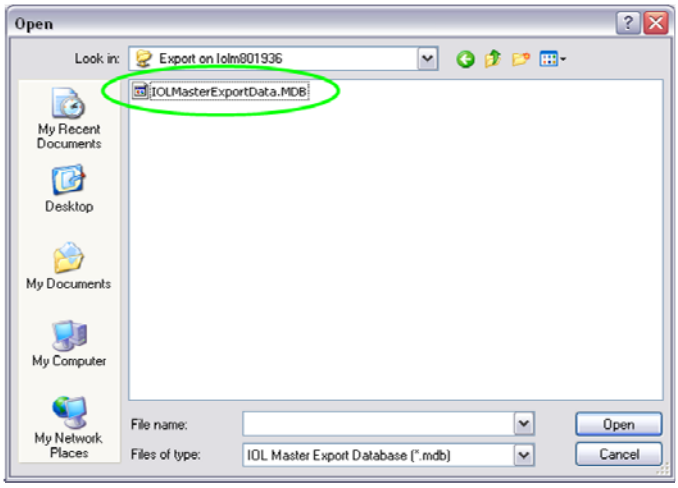
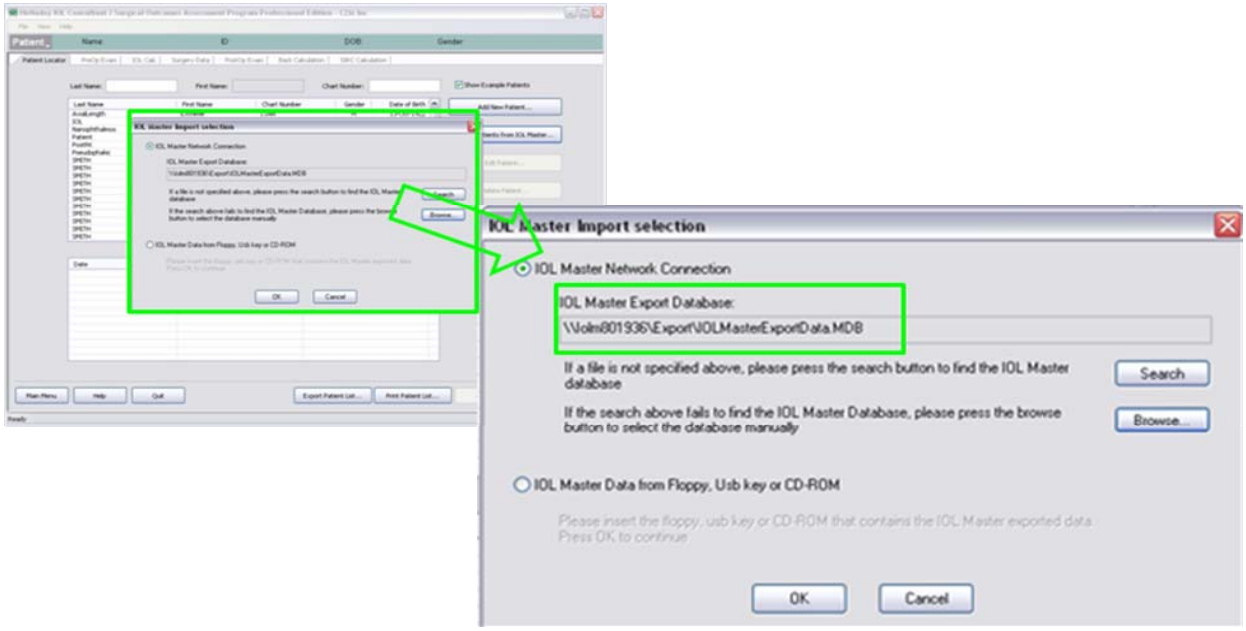
14. The contents of the "Export" shared folder will now be displayed. We can see the desired database file, which is entitled "IOLMasterExportData.MDB". Double – Click on this file to open it and return to HIC – PRO:



15. The program will return to the "IOL Master Import selection" window, and the path to the IOLMaster database will appear in the "IOL master Export Database:" dialogue box:


IOL Master Import selection
IOL Master Network Connection
IOL Master Export Database:
\\Iolm801936\Export\IOLMasterExportData.MDB
If a file is not specified above, please press the search button to find the IOL Master database
Search
If the search above fails to find the IOL Master Database, please press the browse button to select the database manually
Browse...
IOL Master Data from Floppy, Usb key or CD-ROM
Please insert the floppy, usb key or CD-ROM that contains the IOL Master exported data. Press OK to continue
OK
Cancel

16. Click on the "OK" button to return to the patient selection screen of the Holladay IOL Consultant program:

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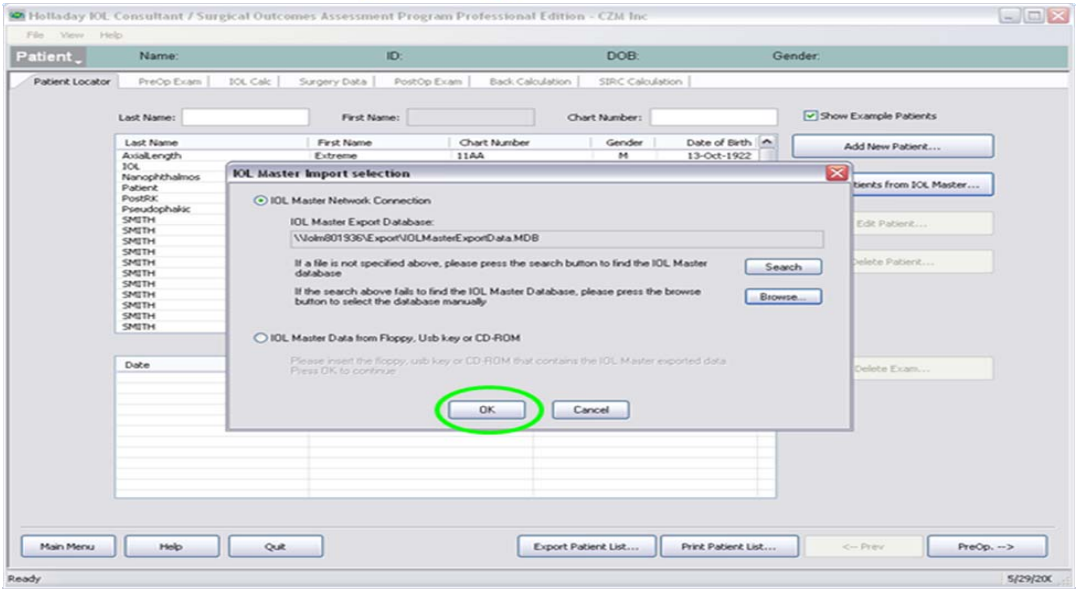

The above procedure assumes that the customer has connected both the computer with the Holladay IOL Consultant software (HIC – PRO) AND the IOL Master XP to their network, and that the network is a DHCP configured network.

If the network settings are different, a CZMI Field Engineer will have to grant access to the configuration of the IOLMaster network connection.

This procedure has been presented for informational purposes only. CZMI does not provide technical support for the Holladay IOL Consultant software. For support of this product, please contact Dr. Holladay at www.docholladay.com

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